RENESAS Tool News

The C Compiler Package--M3T-NC30WA-- for the M16C/60, M16C/30, M16C/20, M16C/10, M16C/Tiny, and R8C/Tiny MCU Series Revised to V.5.42 Release 00

We have revised the C compiler package--M3T-NC30WA--for the M16C/60, M16C/30, M16C/20, M16C/10, M16C/Tiny, and R8C/Tiny MCU series from V.5.40 Release 00* and Release 00A* to V.5.42 Release 00.

 * Different versions of High-performance Embedded Workshop are bundled with V.5.40 Release 00 and Release 00A. The version of compilers included in the both compiler packages is the same.

1. **Descriptions of Revision**

    For details, please see the release note included with this product.

    1.1   **Functions Improved and Introduced**
    The functions improved and introduced are as follows. For details of these functions, see the release note and user's manual of the product.

    (1)   The single-precision floating-point libraries improved. Processing time and ROM size needed to perform the following libraries and functions have been improved:
    - the run-time libraries for single-precision arithmetic operations
    - the primary functions sinf, cosf, tanf, atanf, expf, logf, and sqrtf

(2)　The startup file improved as follows:
- ROM addresses at linking are automatically adjusted for the CPU group and the ROM size selected when workspaces are created using the High-performance Embedded Workshop.
- The assembler startup file has been divided into those two for the R8C/Tiny series and the M16C ones*.
  * M16C/60, M16C/30, M16C/20, and M16C/10; and M16C/Tiny series

(3)　Compilation speed has been improved when optimizing options selected.

(4)　Rules for creating the ID files generated by the load-module converter have been modified as follows:
The ID code defined by the .ID assembler directive command are outputted to the ID file generated by the load-module converter.
According to this change of rules, changes for combining assembler directive commands ".ID" and ".PROTECT"; and options in the load- module converter "-ID", "-protect1", and "-protectx" have also been made.

(5)　The Call Walker, utility tool for calculating stack size, and the Map Section Information window in the High-performance Embedded Environment have been supported.

1.2　The High-performance Embedded Workshop Revised

The High-performance Embedded Workshop included with the product has been revised directly from V.4.00.03 to V.4.01.01 (intermediate V.4.01.00 skipped).
For details see the following:
- RENESAS TOOL NEWS Document No. 060701/tn1, "The High-performance Embedded Workshop Revised to V.4.01.00", published on July 1, 2006
- RENESAS TOOL NEWS Document No. 060801/tn1, "The High-performance Embedded Workshop Revised to V.4.01.01", published on August 1, 2006

1.3　Problems Fixed

The following known problems have been fixed:

(1)　On comparing a constant with the return value from a function in an if statement

(2)   On compiling source code for the R8C/20, /21, /22, /23, /24, or /25 MCU group

(3)   On using the MISRA C rule checker SQMlint

(4)   On accessing an array variable in the loop of a for statement

(5)   On address calculations made in an iteration statement

(6)   On evaluating two or three bits in a controlling expression

(7)   With automatic generation of variable interrupt- and special page vector tables

2. How to Update Your Product and Purchase the Revised One

2.1 Free-of-Charge Update

Free-of-charge online update is available. If you are using the product concerned, download the installer of the revised product from the download site (Global site) and execute it.

NOTICE:

The above URL is that of our global site (in English). The regional sites will be opened two or three days after the above date.

2.2 First Ordering

If you place an order for the product, please supply the following items of information to your local Renesas Technology sales office or distributor (for the price of the product and the volume discount, also contact them):

Product Type	C compiler package for the M16C/60, M16C/30, M16C/20, M16C/10, M16C/Tiny, and R8C/Tiny series
Version No.	V.5.42
Release No.	Release 00
Host OS	Windows XP, Windows Me, Windows 98, Windows 2000,or Windows NT 4.0

included. The URLs in the Tool News also may be subject to change or become invalid without prior notice.